Office Action Summary	Application No.	Applicant(s)	
	10/817,115	WEBB ET AL.	
	Examiner	Art Unit	
	Jason M. Sims	1631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 April 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) *11-25* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10,26 and 27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 April 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Applicant's arguments, filed 4/26/2007, have been fully considered but they are not deemed to be persuasive. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

Applicants have amended their claims, filed 4/26/2007, and therefore rejections newly made in the instant office action have been necessitated by amendment.

Claims 1-10 and 26-27 are the current claims hereby under examination.

Drawings

The drawings were received on 4/26/2007. These drawings are replacement drawings now in compliance and have been entered. The objection to the drawings has now been withdrawn.

Specification

The objection to the specification has been withdrawn because of applicant's amendment to the specification to indicate appropriate trademarks and an appropriate title.

Claim Rejections - 35 USC § 101

Applicant's arguments, filed 4/26/2007, with respect to the rejection of claims 1-10 and 26-27 under 35 USC 101 for being drawn to non-statutory subject matter has been fully considered and are persuasive because of applicant's amendment to the claims. Therefore the rejection of claims 1-10 and 26-27 under 35 USC 101 has been withdrawn.

Claim Rejections - 35 USC § 112

Applicant's arguments, filed 4/26/2007, with respect to the rejection of claims 6-9 and 26-27 under 35 USC 112 second paragraph have been fully considered and are persuasive because of applicant's amendments. Therefore, the rejection of claims 6-9 and 26-27 under 35 USC 112 second paragraph has been withdrawn.

Claim Rejections - 35 USC § 102

Response to Arguments:

Applicant's arguments filed 4/26/2007 have been fully considered but they are not persuasive.

Applicant alleges that the Cronin application, which claims priority to U.S.S.N. 08/778,794, which was filed on January 3, 1997 and that the subject matter of claim 31 was introduced on its date of filing and does not appear to be supported by the specification of the 794 application.

Applicant's allegations are not found persuasive as it was stated in the Non-Final office action mailed, 11/2/2006, the Cronin et al. (US PGPUB # 2006/229824) has an effective filing date of 05/01/2002, which is for (US PGPUB # 2003/0165830) and which also has clear support for the subject matter of claim 31. Cronin et al. at paragraph [0138] teaches identifying the target through decoding information obtained from an array hybridization. Furthermore, Cronin et al. at paragraph [0089] discusses performing computer analysis on the data from array chips. Therefore, it is clear that

the stated method steps in the referenced invention have a clear computer analysis component, which performs the step of decoding information obtained from an array. The information, which has been decoded, clearly falls under the broad interpretation of encoded information as defined by the applicants. Applicant gives the broad definition of encoded information as being "Information about an array may be "encoded" in data obtained from an array, if that data is obtained from one or more array information features contained in that array." In addition, several examples of what form that data may be in were given as being for example, "any alphabet, including the English and Braille alphabets, or binary or non-binary coding systems." Therefore, the information obtained from the array, which has been analyzed through a computer, is clearly obtained from the array features and in the form of binary coding during the analysis along with output being in non-binary coding as is the nature of the workings of modern computers. Therefore, the rejection of claims 1-8 and 26-27 is being maintained as reiterated below.

The Rejection of Claims 1-8 and 26-27 is maintained as stated below:

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-8 and 26-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Cronin et al. (US PGPUB # 20060229824) with an effective filing date of 05/01/2002.

The claims are drawn to a computer-readable medium comprising information for decoding encoded array information.

Cronin et al. disclose a computer-readable medium comprising information for decoding encoded array information (claim 31).

With respect to claim 2, Cronin et al. disclose an array of nucleic acids (claim 32).

With respect to claim 3, Cronin et al. disclose a table with a list of feature identifiers and a list of probe identifiers (claim 33).

With respect to claim 4, Cronin et al. disclose that their table indicates that certain features are array information features (claim 34).

With respect to claim 5, Cronin et al. disclose that the table indicates which features correspond to which bit of code (claim 35).

With respect to claim 6, Cronin et al. disclose that the information indicates an executable program (claim 36).

With respect to claim 7, Cronin et al. disclose that the file has a unique identifier (claim 37).

With respect to claim 8, Cronin et al. disclose that the array information features encode binary coded information (claim 38).

With respect to claims 26-27, Cronin et al. disclose a kit with the limitations (claims 51-52).

Claim Rejections - 35 USC § 103

Response to Arguments:

Applicant's arguments filed 4/26/2007 have been fully considered but they are not persuasive.

Applicant alleges that the Cronin application, which claims priority to U.S.S.N. 08/778,794, which was filed on January 3, 1997 and that the subject matter of claim 31 was introduced on its date of filing and does not appear to be supported by the specification of the 794 application.

Applicant's allegations are not found persuasive as it was stated in the Non-Final office action mailed, 11/2/2006, the Cronin et al. (US PGPUB # 2006/229824) has an effective filing date of 05/01/2002, which is for (US PGPUB # 2003/0165830) and which also has clear support for the subject matter of claim 31. Cronin et al. at paragraph [0138] teaches identifying the target through decoding information obtained from an array hybridization. Furthermore, Cronin et al. at paragraph [0089] discusses performing computer analysis on the data from array chips. Therefore, it is clear that the stated method steps in the referenced invention have a clear computer analysis component, which performs the step of decoding information obtained from an array. The information, which has been decoded, clearly falls under the broad interpretation of encoded information as defined by the applicants. Applicant gives the broad definition of encoded information as being "Information about an array may be "encoded" in data obtained from an array, if that data is obtained from one or more array information features contained in that array." In addition, several examples of what form that data

may be in were given as being for example, "any alphabet, including the English and Braille alphabets, or binary or non-binary coding systems." Therefore, the information obtained from the array, which has been analyzed through a computer, is clearly obtained from the array features and in the form of binary coding during the analysis along with output being in non-binary coding as is the nature of the workings of modern computers. Therefore, the rejection of claims 1-8 and 26-27 is being maintained as reiterated below.

The Rejections of Claims 9 and 10 are maintained as stated below:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cronin et al. (US PGPUB # 20060229824) as applied to claims 1-8 and 26-27 above, and further in view of Cool (US PATENT # 6,912,469) with an effective filing date of 05/05/2000.

The claim is drawn to a computer-readable medium of claim 1 using binary coded information encoded in binary coded decimal or binary ASCII code.

Cronin et al. disclose the computer-readable medium of claim 1 using binary coded information (claim 38) but do not disclose the use of either binary coded decimal or binary ASCII code.

Cool discloses encoding binary coded information as binary ASCII code (column 8, lines 11-18).

It would have been obvious for one of ordinary skill in the art, at the time the invention was made, to modify the computer-readable medium of Cronin et al. to use binary ASCII code. One of ordinary skill in the art would have been motivated to do this because the binary ASCII code provides a format that optimizes the amount of storage needed to store the encoding information (Cool, column 8, lines 11-14). Hence, by using binary ASCII code, one could encode more data while using less memory.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cronin et al. (US PGPUB # 20060229824) as applied to claims 1-8 and 26-27 above, and further in view of Hu et al (US PGPUB # 2004/0248287) with an effective filing date of March 28th, 2003.

The claim is drawn to a computer-readable medium of claim 1 with the use of multi-arrays.

Cronin et al. disclose the computer-readable medium of claim 1 (see Cronin et al. claim 31) but do not disclose the use of multi-arrays.

Hu et al. disclose multi-arrays and their use (abstract).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the computer-readable medium of Cronin et al. to use multi-arrays. One of ordinary skill in the art would have been motivated to do this because, as suggested by Hu et al., multi-arrays require less sample than traditional arrays (paragraph 10, lines 1-4). Hence, by using a multi-array, one could carry out the same assays without having to extract as much sample or carry out more assays for a given sample amount.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Sims, whose telephone number is (571)-272-7540.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Ram Shukla can be reached via telephone (571)-272-0735.

Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the Central PTO Fax Center. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993) (See 37 CFR § 1.6(d)). The Central PTO Fax Center number is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

// Jason Sims //

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8/20/07